

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A hydrocarbon hydroconversion catalyst, comprising a medium with a base of at least one refractory oxide, selected from the group consisting of alumina, silica and silica-alumina, wherein the at least one refractory oxide contains 0.1 to 10% by weight of at least one metal of group VIII, and 1 to 20% by weight of at least one metal of group VIB on the Period Table of the Elements; and further comprising at least one organic compound with at least one oxime group of the formula:



where R_1 is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of said groups can be substituted by at least one electron donor group.

2. (previously presented): The catalyst described in claim 1, wherein the organic compound is the result of the reaction of an amine of formula (II) below



in which R₁ is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of said groups can be substituted by an electron donor group, with a carbonyl compound of formula (III) below



where R₃ and R₄, which are either identical to or different from one another, are chosen from among hydrogen, for only one of them, linear, ramified or cyclic alkyl, aryl, allyl or alkenyl groups, and combinations thereof, which themselves can be substituted by electron donor groups.

3. (previously presented): The catalyst described in claim 2, wherein the amine of formula (II) is hydroxylamine.

4. (previously presented): The catalyst described in claim 2, wherein the carbonyl compound of formula (III) is chosen from among carbonyl compounds that are naturally present in a hydrocarbon charge that is the result of the distillation of crude oil, or ketones and aldehydes.

5. (previously presented): The catalyst described in claim 1, wherein said organic compound has a principal carbonaceous chain of 1 to 40 carbon atoms that is linear, ramified or partially or completely cyclic, that can be interrupted by heteroatoms chosen from among sulfur, nitrogen or oxygen, and the carbon atoms can be substituted by a hydrogen atom, alkyl or aryl groups, at least one oxime group, at least one hydroxyl, sulfide or polysulfide group, a thiol, thioacid, thioether or thioester group, sulfone or sulfoxide groups, amine, amide or imine groups,

carboxyl, ether or ester groups, ketone or aldehyde groups, nitrate groups, phosphines or any other group with a free electron pair.

6. (previously presented): The catalyst described in claim 5, wherein the organic compound includes a single oxime group.

7. (previously presented): The catalyst described in claim 6, wherein the organic compound is chosen from among alkyloximes, alkenyloximes, allyloximes, aryloximes and combinations thereof, alkanoneoximes, cycloalkyloximes, alkanaloximes and benzaldehyde oximes, which may or may not be substituted by alkyl, aryl, arylalkyl and alkylaryl groups.

8. (previously presented): The catalyst described in claim 7, wherein the organic compound is chosen from the group consisting of 2-octanone oxime, 3-heptanone oxime, tricosanone oxime, heptanone oxime, phenyldodecanone oxime, 1,3-diphenylacetone oxime, benzophenone oxime, 2-phenylcyclohexanone oxime, fluorenone oxime, dimethylbenzaldehyde oxime, benzaldoxime, acetophenone oxime, methylphenanthryloxime, 2 methyl-benzaldehyde oxime, cyclooctanone oxime, 2-phenylcyclohexanone oxime, o-ethylhexanone oxime, isobutyraldehyde oxime and acetone oxime.

9. (previously presented): The catalyst described in claim 1, wherein the organic compound includes one oxime group and at least one second group with a free electron pair.

10. (previously presented): The catalyst described in claim 9, wherein said organic compound has at least two oxime groups.

11. (previously presented): The catalyst described in claim 10, wherein said organic compound is chosen from among dioximes and polyoximes comprising one or more alkyl, aryl, alkylaryl and arylalkyl groups.

12. (previously presented): The catalyst described in claim 11, wherein said organic compound is chosen from among glyoxime, monoalkylglyoximes, dialkyloximes and polyoximes with carbonaceous chains including 1 to 10 carbon atoms that tolerate hydrogen and alkyl, aryl, alkylaryl and arylalkyl groups.

13. (previously presented): The catalyst described in claim 12, wherein said compound is dimethylglyoxime.

14. (previously presented): The catalyst described in claim 9, wherein the second group with a free electron pair is chosen from among the hydroxyl, sulfide and polysulfide groups, thiol, thioacid, thioether and thioester groups, sulfone and sulfoxide groups, amine, amide and imine groups, carboxyl, carbonyl, ether and ester groups, ketone and aldehyde groups, nitrate groups and phosphines.

15. (previously presented): The catalyst described in claim 14, wherein the organic compound is chosen from among mercaptoalkane oximes, alkoxybenzaldehyde oximes, alkoxyarylbenzaldehyde oximes, nitrobenzaldehyde oximes and alkoxybenzaldehyde oximes, hydroxybenzaldehyde oximes, alkoxybenzophenone oximes, substituted carboxaldehyde oximes, nitroarylalkanone oximes, aminobenzaldehyde oximes, benzamide oximes, substituted acetyl oximes, acetyl-furan, acetyl-thiophene and acetyl-pyridine oximes, hydroxyalkanal oximes, amidooximes, acetophenone oximes, oxime hydrazones or polyalkanol oximes, any of which can be substituted by alkyl, aryl, arylalkyl, alkylaryl, pyridinyl, thiophenyl and furanyl groups, sulfides, alkoxyls, amines, cyanides, nitrates and hydroxyls.

16. (previously presented): The catalyst described in claim 15, wherein the organic compound is chosen from among d-galactose oxime, benzamide oxime, benzyl oxime hydrazone, benzoichydrazide oxime, ethyl-2-oxobutyrate-2-oxime, isatine-3-oxime,

ethyl(hydroxyimino)cyano-acetate, di-2-pyridylketone oxime, benzamide oxime, hydroxypentanal oxime, 4-pyriylamido oxime, nitrobenzaldehyde oxime, methoxybenzophenone oxime, hydroxybenzaldehyde oxime, dimethylaminobenzaldehyde oxime, 2-acetylpyridine oxime, 4-hexadecyloxybenzaldehyde oxime, methylthioacetaloxime, dimethoxy-nitrobenzaldehyde oxime, methoxyacetophenone oxime, methylbenzamide oxime, thiophenecarboxaldehyde oxime, acetyl-thiophene oxime, aminobenzophenone oxime, acetyl(methyl)thiophene oxime, 2-(4-methoxyphenyl)glyoxal-1 oxime, 1-mercaptopropane-2-oxime, aminophenylethane oxime, (octyloxyphenyl)phenyl-methanone, acetylfurane oxime, acetonaphthoquinone oxime, 4-methoxy-3-nitro-benzaldehyde oxime, ethoxybenzaldehyde oxime, methoxybenzaldehyde oxime, 2-(4-methoxyphenyl)glyoxal 1-oxime, 1-mercaptopropan2-one oxime, 1-(3-nitrophenyl) ethanone oxime, phenanthrene quinine-9-oxime, o-(4-nitrophenyl)acetone oxime, and isatine-3-oxime.

17. (previously presented): The catalyst described in claim 1, comprising at least 0.001 mole of said organic compound per mole of metal from groups VIB and VIII.

18. (previously presented): The catalyst described in claim 17, comprising from 0.001 to 10 moles of said organic compound.

19. (previously presented): A process for preparing the catalyst described in claim 1, comprising contacting a catalyst in a medium of a base of at least one refractory oxide, at least one metal of group VIII and at least one metal of group VIB with the organic compound of claim 1, as a gas, diluted in a solvent, and/or in a hydrocarbon charge, to form the catalyst of claim 1.

20. (previously presented): The process described in claim 19, wherein said organic compound is a synthesized compound, obtained by reacting a carbonyl compound of formula (III), which may or may not be contained in the hydrocarbon charge being processed, with an

amine of formula (II), by maintaining the mixture at a temperature between room temperature and 100° C, under pressure that is at least equal to atmospheric pressure.

21. (previously presented): The process described in claim 19, wherein said organic compound is prepared *in situ* in a hydroconversion reactor, in the hydrocarbon charge being processed.

22. (previously presented): The process described in claim 19, wherein the organic compound is prepared *ex situ*, and then deposited or impregnated on the catalyst.

23. (withdrawn-previously presented): A hydrocarbon hydrotreatment and/or hydrocracking process, after *in situ* or *ex situ* sulfidation of a catalyst of claim 1 without said organic compound, using at least one sulfide compound chosen from among hydrogen sulfide, sulfur, CS₂, mercaptans, sulfides and/or polysulfides or hydrocarbon fractions with a boiling point of less than 400° C containing sulfur compounds, or other compounds with a sulfidizing effect, comprising

contacting said catalyst with the organic compound of claim 1 in the form of a gas or in diluted form in a solvent, and

passing a hydrocarbon charge to be hydrotreated and/or hydrocracked over said catalyst, wherein the organic compound can be provided as an additive of the hydrocarbon charge being converted, in addition to or in lieu of contacting the catalyst with compound in the form of a gas or in diluted form in a solvent.